

## Choose Safer Chemicals

### Purchasing with your employees and the environment in mind

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#### Overview

Prince William County, the 2<sup>nd</sup> largest county in the state, implemented a program to protect the environment and their employees by reducing the use of hazardous chemicals. The County serves the needs of over 450,000 citizens and has over 150 leased or owned facilities including offices, fire stations, maintenance shops and more.

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#### What are the benefits of choosing green products?

- Improve employee health and safety – workers suffer more than 190,000 illnesses and 50,000 deaths annually related to chemical exposure.<sup>1</sup>
- Protect the environment – chemicals that end up down the drain or on the ground can lead to contamination.
- Reduce costs – using hazardous chemicals can result in direct, indirect and liability costs.<sup>2</sup>
- Limit regulatory requirements – potential for fewer regulatory requirements than hazardous chemicals.

#### How did Prince William County identify the problem?

While PWC was updating their Safety Data Sheets it became clear that too many different products were used and some posed safety concerns. The County inventoried their chemicals and found over 3,300 different chemicals in use. There was an average of 41 cleaning chemicals at County facilities. The variety of chemicals made it difficult to manage Safety Data Sheets. Chemical inventory was not well managed. Duplicate products were being purchased, sometimes cases at a time, resulting in large amounts of unused chemicals that required disposal through a vendor. The purchasing issues ranged from too many people buying products to vendors having too much power over product choice.



#### What was the solution?

Prince William County focused on reducing hazardous chemicals through communication of a preferred list of chemicals that were safer and more environmentally friendly. The program focused heavily on waste minimization and cost reduction to gain support from both management and end users. The list focuses on chemical safety, variety of chemicals, chemical components and chemical disposal. Reducing the number of different products being purchased allowed the County to negotiate a better price with their vendor. The Smarter Chemicals Program was piloted with Prince William County's Fire & Rescue System. The program included developing a workgroup, engaging vendors and educating employees on common misconceptions.

## What criteria were used to decide which products would make the Smarter Chemical List?

- Is it safe?
  - No pictographs associated with it or fewer pictographs than its counterparts
  - Nothing higher than a general irritant
  - Approved for use by [Green Clean Schools](#) or [EPA's Safer Choice](#) programs
- Is it cost effective?
  - Close in price or cheaper than similar products
- Does it work?
  - Testing and surveys were used to review products
  - Pilot tests to engage employees



Prince William County did a blind test to determine what products would make the final Smarter Chemicals list.

## What were the results?

The shift to chemical reduction and awareness helped the county reduce their illicit discharge and strengthen pollution prevention programs. The Smarter Chemicals Program will save over \$50,000 a year on chemical purchases for groups that perform custodial duties. The approved chemicals are less expensive, the ordering process is streamlined and personnel are happy with the results.

## Not ready to do your own testing?

Try Safer Choice products.<sup>3</sup> Safer Choice-certified products meet stringent safety criteria and high standards for performance. Find a full list of Safer Choice products at <https://www.epa.gov/saferchoice/products>.

## Tips from Prince William County

- "Clean has no scent" – this helps remind employees that they don't need a chemical smell to know that something is clean.
- Products have a short shelf life.
  - Don't purchase more than you can use. It's a waste of product and money.
- Dilution is essential.
  - Incorrect dilution ratios can leave surfaces slippery or corrode finishes.
- Disinfection takes time.

## Sources:

1. [https://www.osha.gov/dsg/safer\\_chemicals/](https://www.osha.gov/dsg/safer_chemicals/)
2. <https://saferchemicals.org/>
3. <https://www.epa.gov/saferchoice>